

Patent

APR 25 2006  
Customer No. 31561  
Docket No. 9758-US-PA  
Application No.: 10/605,237

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Applicant : Lin et al.  
 Application No. : 10/605,237  
 Filed : September 17, 2003  
 For : AN INTERFACE APPARATUS WITH A ROTATIONAL  
 MECHANISM  
 Art Unit : 2839  
 Examiner : DUVERNE, JEAN F.

TRANSMITTAL LETTER

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(Via fax: 1+13 pages)

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Thank you for your assistance in the subject matter. If you have any questions, please feel free to contact me.

Respectfully Submitted,  
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APR 25 2006  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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EX PARTE Lin et al.

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Application for Patent

Filed September 17, 2003

Serial No. 10/605,237

FOR:  
AN INTERFACE APPARATUS WITH  
A ROTATIONAL MECHANISM

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APPEAL BRIEF

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Attorney Docket No. 9758-US-PA

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**I. REAL PARTY IN INTEREST**

The real parties in interest are Yu-Chuan Lin, Chun-Chieh Chen, Hung-Ju Shen, Chien-Hua Wu, Sheng-Lin Chiu, Huan-Tung Wang, and Hsin-Chih Hung, the inventors named in the subject application, and RITEK CORPORATION, the assignee of record.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals and/or interferences.

**III. STATUS OF THE CLAIMS**

A total of 13 claims were presented during prosecution of this application. Applicant appeals rejected claims 1, 2-6, 8, and 10-13.

**IV. STATUS OF AMENDMENTS**

Applicant did not file any Amendments after Final Rejection.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates to an interface apparatus having a rotational mechanism for connecting with an interface port in an electronic product. The interface apparatus with rotational mechanism is capable of untangling from adjacent connectors and cables through rotation and/or side movements. Furthermore, the body of the apparatus may be swiveled around to contact the side of the notebook computer so that the notebook computer together with all the plugged interface apparatus can be enclosed within a protective cover for easy carriage. The interface apparatus is designed to connect with the interface port of an electronic product. The interface apparatus comprises a body, a connector, and a rotational mechanism. The connector is adapted for connecting with the interface port of an electronic product. The rotational mechanism serves as a link between the body and the connector. The

rotation mechanism has from one to five degrees of freedom of movements. The number of degrees of freedom of movement is conferred through one or a combination of rotational junctions.

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

*Was claim 1 properly rejected under 35 U.S.C. 102(e) as being anticipated by Reynolds (US 20020104246A1, hereinafter "Reynolds")?*

*Were claims 2-6, 8, and 10-13 properly rejected under 35 U.S.C. 103(a) as being unpatentable over by Reynolds (US 20020104246A1, hereinafter "Reynolds") in view of Stout et al. (US 006612874B1, hereinafter "Stout")?*

## VII. ARGUMENTS

### A. The related law

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004).

The Federal Circuit stated the general principle that since during prosecution, claims "must" be given their "broadest reasonable interpretation," this court reviews the Board's interpretation of disputed claim language to determine whether it is "reasonable" in light of all the evidence before the Board. *In Re Michael C. Scroggie* (Fed. Cir. March 13, 2006).

This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)

*Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. ....).

"[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, \_\_\_ F.3d \_\_\_, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc).

The ordinary and customary meaning of a term may be evidenced by a variety of sources, *Phillips v. AWH Corp.*, \_\_F.3d\_\_, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc), including: the claims themselves, *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999); dictionaries and treatises, *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002); and the written description, the drawings, and the prosecution history, see, e.g., *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1324, 57 USPQ2d 1889, 1894 (Fed. Cir. 2001).

A prima facie case of obviousness requires that the reference teachings "appear to have suggested the claimed subject matter." *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143, 147 (CCPA 1976). To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

When more than one reference or source of prior art is required in establishing the obviousness rejection, "it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification." *In re Latu*, 747 F.2d 703, 223 USPQ 1257, 1258 (Fed. Cir. 1984). There must be some motivation to combine the references; this motivation must come from "the nature of the problem to be solved, the teachings of the prior art, [or] the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

Finally, if an independent claim is nonobvious under 35 U.S.C. 103 (or unanticipated under 35 U.S.C. 102), then any claim depending therefrom is nonobvious (or unanticipated). *In re Fine*, 837 F.2d 1071, 5 USPQ2d, 1596 (Fed. Cir. 1988).

#### B. Grouping of the claims

For the first ground of rejection contested by appellant in this appeal, claim 1 may be treated as one group, and independent claim 1 may be taken as representatives for the issue on appeal. For the second ground of rejection contested by appellant in this appeal, claims 2-6, 8, and 10-13 may be treated as one group to stand or fall together, and dependent claim 2 may be taken as representatives for the issue on appeal.

C. Claim 1 was improperly rejected under 35 U.S.C. 102(e) as being anticipated by Reynolds (US 20020104246A1, hereinafter "Reynolds").

The Examiner rejected claim 1 as being anticipated by Reynolds. Applicant respectfully disagrees with the Office's assertion that Reynolds shows all the limitations of the instant invention as defined in claim 1. In regards to Claim 1, the element "memory module" in claim 1 is not taught in Reynolds.

Although the Examiner has alleged in the Office Action dated November 2, 2005 that Reynolds has a memory module as element (69), element (69) is actually defined as "Advertising cards 69" in Paragraph [0073] and in FIG. 12 in Reynolds.

Furthermore, the Advisory Action dated Feb. 14, 2006 has stated that the request for reconsideration has been considered but does not place the application in condition for allowance because: "it is inherent for the advertising card to have memory capability in order to hold the data to be displayed".

The Applicants respectfully disagrees based on the following:

1. The "advertising card 69" taught in Reynolds as evidenced in FIG 12, and the "advertising card 105" taught in Reynolds as evidenced in FIG. 14 are clearly advertisement cards of a flat paperboard or plastic material or the like and includes no "memory modules" for holding displayed data based upon a **reasonable plain meaning interpretation under the perspective of a person skilled in the art, when the words used are whose meaning is clear and unquestionable.**

2. In Paragraph [0089] in Reynolds, the following is described: "The distal frame member 216 further defines a slot 222 for inserting **advertising materials 224, such as a rigid paperboard or the like**, into operative position within the sign display 200." As clearly shown in Fig. 20 in Reynolds, the embodiment as represented in the above sign display 200 is meant to be similar in concept and application as to the embodiments represented in FIG. 12 and FIG. 14. Therefore, the advertising materials 224 should be defined to be similar to the advertising card 105 and the advertising card 69. As a result, the advertising card 69, 105 should be interpreted by a person skilled in the art when given a reasonable plain meaning to be defined as "a rigid paperboard or the like" also. Therefore,

the existence of a "memory module" for holding display data as being part of the advertising card 105 and the advertising card 69 is clearly not present.

3. The "advertising card" as interpreted by a person skilled in the art of using or making the lighted flexible display device having a battery supply mount for a cabinet 54 should simply be a signage card made of a solid thin sheet material without having any memory modules.

4. In Paragraph [0074] in Reynolds, it is mentioned that "[t]he interior slot formed by the inner edges of circuit board 102 forms a support receptacle for card 69." However, the card 69 is only merely a card of signage and not a memory module to be inserted into the interior slots formed by the inner edges of the circuit board 102. Therefore, there is no implied / inherent / implicit meaning that the card is a memory module that is to be connected to the circuit board 102 in any manner, since the **circuit board 102 is used to be coupled and electrically connected to the display lights 52**. The aforementioned circuit board 102 coupling with the display lights 52 is fully described in Paragraph [0073] in Reynolds: "The frame 64 can include an electrical circuit 70, as before, which is coupled to and electrically powers the several display lights 52 and may take the form of electrical circuit board 102 in FIG. 18."

5. In addition, the display card 18, which is similar to the card 69 above, is also illustrated in FIG. 1 in Reynolds. As clearly seen by the "SUPER BUY \$ 1.29" text shown on the display card 18 in FIG. 1 in Reynolds, the display card 18 is meant to describe a regular display card used for advertisement signage which covers an entire display surface as illustrated in FIG. 1 in Reynolds. Therefore, the advertising card 69 is similar to the display card 18 and is clearly a signage card, and does not have a memory module.

6. As shown in FIGs. 1 and 11 in Reynolds, if hypothetically that a memory module were to be present, such memory module would not be able to display "SUPER BUY \$1.29" by itself without having some type of display module on the surface of the advertising card; and since no display module like a LCD display panel is present over the advertising card 69, the assertion that the advertising card 69 is a memory module is invalid.

As a result, claim 1 is patentable over Reynolds based upon the "advertising card" not having memory module and not having memory capability to hold the data to be displayed, therefore, claim 1 should be allowed.

D. Claims 2-6, 8, and 10-13 were improperly rejected under 35 U.S.C. 103(a) as being unpatentable over by Reynolds (US 20020104246A1, hereinafter "Reynolds") in view of Stout et al. (US 006612874B1, hereinafter "Stout").

Regarding dependent claims 2-6, 8, and 10-13, pending the allowance of claim 1, dependent claims 2-6, 8, and 10-13 should also be patentable over Reynolds in view of Stout based upon the following traversal.

Pending the allowance of claim 1 due to the "memory module" or "memory capability" not being taught in Reynolds for the "advertising card", therefore, there would be insufficient motivation for a person skilled in the art to use Reynolds in the first place as a reference to combine with Stout.

As described in MPEP 2143.01, "[t]here are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998)."

The nature of the problem to be solved with respect to the dependent claims 2-6, 8, and 10-13 is to provide an interface apparatus with a rotational mechanism comprising a "memory module". Furthermore, persons of ordinary skill in the art in the field such as electronic peripheral manufacturers for the manufacturing of the above interface apparatus would not be motivated to seek out the cited reference of Reynolds because Reynolds teaches of a **lighted display device using signage cards for advertising purposes**, and is mounted typically on **conventional display cabinets** such as soda machines as shown in FIG. 11 in Reynolds. The knowledge of person of ordinary skill in the art of the present invention is not likely to extend over to an art focused on the know-how of "**lighted display device using signage cards for advertising purposes mounted on display cabinets**".

Based upon the above traversal, the cited reference of Reynolds is not applicable at all for use in a rejection under 35 U.S.C. 103(a) in view of Stout.

Without the use of Reynolds, the teachings from Stout are completely insufficient to form a rejection under 35 U.S.C. 103(a) over dependent claims 2-6, 8, and 10-13 based upon the following:

1) Stout **does not** teach of having **only** "a connector" as claimed in Claim 1 and as taught in FIGs. 2, 6, and 8 of the present invention; Stout teaches instead of having **two connectors** as described in col. 11, lines 25-32 and FIGs. 2, 4, 8, and 9 in Stout.

2) Stout **does not** teach of an interface apparatus **having** a "memory module" but instead teaches of **interconnecting** to a peripheral device such as one having a "memory module". The embodiments of the "connector adapter" in Stout shown in FIGs. 2, 4, 7, 8, and 9 clearly shows an interface apparatus **without** a "memory module" included. FIG. 3 in Stout clearly shows the interface apparatus 16 interconnected to an external device such as an antenna 14 as described in col. 6, lines 56-57.

3) Stout teaches of a housing interconnecting **two** connectors as described in Col. 11, lines 33-35 in Stout; whereas, the present invention teaches of a body coupled to **only one** connector as shown in FIGs 2, 6, and 8 of the present invention.

4) Stout **does not** teach of a housing that includes electronic circuitry, as is inherently found in the housing described in Paragraph [0021] of the present invention.

Therefore, dependent claims 2-6, 8, 10-13 should all be allowed.

For at least the foregoing reasons, Applicants respectfully submit that claims 2-6, 8, 10-13 patently define over Reynolds and Stout, and therefore should be allowed. Reconsideration and withdrawal of the above rejections is respectfully requested.

## E. Conclusion

In view of the above discussion, Applicant believes that the rejections under 35 U.S.C. 102 and 35 U.S.C. 103 are in error, and respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's rejections of the claims on appeal.

Date : *April 25, 2006*

Respectfully submitted,

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## VIII. CLAIMS APPENDIX

**CLAIMS ON APPEAL:**

1. (previously presented) An interface apparatus with a rotational mechanism for connecting with an interface port in an electronic product, the interface apparatus comprising:
  - a body comprising a memory module;
  - a connector for connecting with an interface port; and
  - a rotational mechanism for linking the body and the connector.
2. (original) The interface apparatus of claim 1, wherein the memory module comprises a non-volatile memory module.
3. (original) The interface apparatus of claim 1, wherein the connector comprises a universal serial bus (USB) interface.
4. (original) The interface apparatus of claim 1, wherein the connector comprises an IEEE 1394 interface.
5. (original) The interface apparatus of claim 1, wherein the rotational mechanism has one to five degrees of freedom of movements.
6. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a rotational joint having one degree of freedom of movements.
7. (original) The interface apparatus of claim 6, wherein the rotational joint is selected from a group consisting of a rotational joint, a sliding joint, a rolling joint, a cam-wheel joint, a gear-wheel joint, a spiral joint, a cylindrical joint, a ball-and-socket joint and a plane-sliding joint.

8. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a plurality of rotational joints with each rotational joint having one degree of freedom of movements.

9. (original) The interface apparatus of claim 8, wherein each rotational joint is selected from a group consisting of a rotational joint, a sliding joint, a rolling joint, a cam-wheel joint, a gear-wheel joint, a spiral joint, a cylindrical joint, a ball-and-socket joint and a plane-sliding joint.

10. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a rotational joint having two degrees of freedom of movements.

11. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a rotational joint having from three to five degrees of freedom of movements.

12. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a plurality of rotational joints with each rotational joint having two degrees of freedom of movements.

13. (previously presented) The interface apparatus of claim 1, wherein the rotational mechanism further comprises a plurality of rotational joints with each rotational joint having from three to five degrees of freedom of movements.

**IX. EVIDENCE APPENDIX**

There is no evidence submitted pursuant to §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the examiner and relied upon by appellant in the appeal, along with a statement setting forth where in the record that evidence was entered in the record by the examiner.

**X. RELATED PROCEEDINGS APPENDIX**

There are no decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief.